

**APPLICANT PROPOSES FOLLOWING AMENDMENT TO INDEPENDENT CLAIM 1:**

1. (Proposed Amendment) A data processing device which reads out program instructions from an instruction region in a main memory and writes a result of a computation into the main memory,

the data processing device comprising:

first computing means for performing a computation based on one or more instructions in the instruction region which are read out from the main memory;

a register by which the first computing means writes and reads data to/from the main memory;

input/output group generating means for generating an input/output group, which is made up of an input pattern comprising one or more input elements and an associated output pattern comprising one or more output elements, at a time of execution of one or more program instructions in the instruction region by the first computing means; and

input/output group storage means for storing the input/output group in an instruction region storage section of the input/output group generating means, wherein

at the time of execution of instructions read out from the instruction region in main memory, if an input pattern in the instruction region is matched with an input pattern in the input/output group, the first computing means performs a reuse operation that outputs the associated output pattern to the register and/or the main memory, and wherein

the input/output group generating means also generates dependency relations information, which is stored in a dependency relations storage section, that indicates which input value an input address of a register/memory from which a readout is carried-

out corresponding to an input element in the input pattern of the input/output group that each output value and output address, of a register/memory to which writing is performed, corresponding to an output element in an associated output pattern is derived; and

input/output group setting means for setting, based on stored dependency relations information, an input/output group that is made up of an output pattern including at least one said output element and an input pattern including at least one said input element.